



Material Safety Data Sheet

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| NFPA | PPE | | |
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Issued Date 08-Feb-2007

Revision Date 14-Jan-2009

Revision Number: 4

24-276 - DECCO 276 EC

1. PRODUCT AND COMPANY IDENTIFICATION

DECCO
 Cerexagri, Inc.
 1713 S. California Ave.
 Monrovia, CA 91016-0120

Emergency Telephone Number
 Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
 Medical: Rocky Mountain Poison Control Center
 (866) 673-6671 (24hrs)

Company Information
 Decco-Cerexagri

Contact Information
 Customer Service

Phone Number
 626-358-1838

Available Hrs
 8:00am - 5:00pm (PT)

Product Name DECCO 276 EC
EPA Reg # 2792-40
Recommended Use Potato sprout inhibitor
Product Code 24-276

2. HAZARDS IDENTIFICATION

Emergency Overview
 Flammable Liquid
 Harmful by inhalation, in contact with skin and if swallowed
 Mild eye irritation
 Vapors may cause flash fire or explosion

CAUTION
Appearance Viscous, Yellow. **Physical State** Liquid. **Odor** Not available

Potential Health Effects

- Inhalation
 - Skin contact
- Acute Effects**

Isopropanol:
 Prolonged or repeated contact removes oils from the skin and may dry skin causing irritation, redness and rash. High vapor concentrations may be irritating to the eyes and respiratory tract, and may result in CNS effects such as headache, dizziness, nausea, drowsiness and, in severe exposures, loss of consciousness. If swallowed, this material may cause digestive tract irritation, vomiting and CNS effects as noted above. Mild to severe lung injury may occur if this material is drawn into the lungs (aspirated) during swallowing, or during vomiting after swallowing. Symptoms of injury may include increased breathing and heart rate, coughing and related signs of respiratory distress.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name

| Chemical Name | CAS-No | Weight % | OSHA PEL |
|-------------------------------------|-----------|----------|-------------------------------|
| Chloropham | 101-21-3 | 25.5 | N/A |
| Isopropanol | 67-63-0 | 15 | 980 mg/m ³ 400 ppm |
| Polyoxyethylene sorbitan monooleate | 9005-65-6 | 15 | N/A |

4. FIRST AID MEASURES

Eye Contact

Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.
Call a poison control center or doctor for treatment advice.

Skin Contact

Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15-20 minutes.
Call poison control center or doctor for treatment advice.

Inhalation

Move person to fresh air.
If person is not breathing, call 911 or an ambulance, then give artificial respiration.
Call a poison control center or doctor for further treatment advice.

Ingestion

Call a physician or Poison Control Center immediately
Have person sip a glass of water if able to swallow
Do not induce vomiting unless told to do so by a poison control center or doctor
Call a physician or poison control center for treatment advice.
Never give anything by mouth to an unconscious person

Notes to Physician

No information available

5. FIRE-FIGHTING MEASURES

Flammable Explosive Properties
Flash Point

40°F

Method

Pensky Martin Closed Cup

Autoignition Temperature

Not available

Flammability Limits in Air

Not available

Extinguishing Media

Use: Water spray, Carbon dioxide (CO₂), Foam, Dry chemical.

Fire/Explosion Hazard

Firefighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear and self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use.

Hazardous Combustion Products

Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, and other flames and ignition sources at locations distant from material handling point.

NFPA

Health 1

Flammability 3

Instability 0

6. ACCIDENTAL RELEASE MEASURES

| | |
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| Personal Precautions | Remove all sources of ignition. Avoid contact with the skin and the eyes. Use personal protective equipment. Take precautionary measures against static discharges. Pay attention to flashback. |
| Environmental Precautions | Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.. |
| Methods for Clean-up | Remove all ignition sources. Use non-sparking tools . Ground and bond containers when transferring material. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal. Keep in suitable and closed containers for disposal. |

7. HANDLING AND STORAGE

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|-----------------|---|
| Handling | Keep out of reach of children. Check that all equipment is properly bonded and grounded.. Do not eat, drink or smoke when using this product. Remove all sources of ignition. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Empty containers may contain hazardous residues. Avoid breathing vapors or mists. Wear personal protective equipment. Remove and wash contaminated clothing before re-use. |
| Storage | Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly rated, grounded and installed to satisfy electrical classification requirements. . Static electricity may accumulate when transferring material. All containers must be bonded and grounded during filling and emptying operations.. Keep containers tightly closed in a dry, cool and well-ventilated place. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL |
|---------------|-----------|-------------------------------|
| Isopropanol | 200 ppm | 980 mg/m ³ 400 ppm |

| | |
|-----------------------------|--|
| Engineering Controls | Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems. . |
|-----------------------------|--|

Personal Protective Equipment

Eye/face Protection

Skin Protection

Respiratory Protection

Avoid contact with eyes. Goggles.

Chemical resistant gloves. Chemical resistant apron. Wear protective gloves/clothing.

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134. .

General Hygiene Considerations

Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|----------------------------|----------------|----------------------------|-------------------|
| Appearance | Viscous Yellow | Odor | Not available |
| Physical State | Liquid | pH | No data available |
| Boiling Point/Range | Not available | Melting Point/Range | Not available |
| Specific Gravity | 1.0 g/cc | Solubility | Miscible |
| Evaporation Rate | Not available | Vapor Pressure | Not available |
| Vapor Density | Not available | VOC Content | Not available |
| Viscosity | 78.6 cps | Molecular Weight | No data available |
| Bulk Density | 8.35 lbs/gal | Percent Solids | Not available |
| Percent Volatiles | Not available | | |

10. STABILITY AND REACTIVITY

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|--|---|
| Stability | Fire Hazard Stable under recommended storage conditions |
| Conditions to Avoid | Keep away from open flames, hot surfaces and sources of ignition. |
| Incompatible Materials | Strong acids. Strong bases. |
| Hazardous Decomposition Products | Carbon monoxide. Carbon dioxide (CO ₂). Nitrogen oxides (NO _x). |
| Possibility of Hazardous Polymerization | Hazardous polymerisation does not occur |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Chloropham:

Rats given protein deficient diets showed increased susceptibility to acute effects of this material. Repeated oral exposure produced effects on the blood of rats and mice. Long-term feeding studies in rats and dogs produced no adverse effects. No increase in skin or lung tumors was observed in mice fed this material and challenged with promoting agents on the skin. Birth defects were observed in the offspring of mice following oral exposure during pregnancy. No genetic changes were observed in tests using bacteria or animals, but changes were observed in animal cells.

Single exposure studies indicate that this material is slightly toxic if swallowed (rat LD₅₀ 3,950->5,000 mg/kg) practically non-toxic if absorbed through skin (rabbit LD₅₀ >20,000 mg/kg) or inhaled (rat 4 hr LC₅₀ >5 mg/l) and slightly irritating to rabbit eyes and skin.

Isopropanol:

No skin irritation was reported in humans following a single 24 hour exposure. Low doses (2.6 and 6.4 mg) given daily to human volunteers orally for 6 weeks was without adverse effects on the blood. Signs of toxicity in rodents following single oral or inhalation exposures included sensory irritation, liver effects, narcosis and CNS depression. Skin irritation and injury were observed in rabbits following repeated skin application, while sensory irritation, liver and kidney changes and narcosis were observed in rats and mice following repeated inhalation. No signs of nervous system toxicity were observed in rats or mice following repeated inhalation in rats following repeated administration in drinking water. No adverse effects were observed in dogs following repeated administration in drinking, while a decrease in body weight gain was the only adverse effect reported in rats. Long-term skin application produced no skin tumors in mice. No increase in lung tumors occurred in mice after long-term inhalation. No signs of neurotoxicity or developmental toxicity were noted in the offspring of rats exposed orally during pregnancy. No birth defects were noted in the offspring of rats and rabbits exposed orally during pregnancy, even at

amounts which produced toxic effects in the mothers and offspring. Birth defects were reported in the offspring of rats exposed by inhalation during pregnancy, but only at levels which produced significant adverse effects on the mothers. No genetic changes were observed in tests using bacteria or animal cells or animals.

Single exposure studies indicate that this material is slightly to practically non-toxic if swallowed (rat LD50 4,475-7,990 mg/kg) practically non-toxic if absorbed through the skin (rabbit LD50 6,300-13,000 mg/kg) or inhaled (rat 8 hr LC50 51 mg/l), moderately irritating to rabbit eyes (15.8-27/110) and slightly irritating to rabbit skin (4 hr exposure 2/8)

Polyoxyethylene sorbitan monooleate

Single exposure studies indicate that this material is practically non-toxic if swallowed (rat LD50 33,800-54,500 mg/kg) and non-irritating to rabbit eyes and skin.

No skin allergy was observed in humans or guinea pigs following repeated exposure. Humans ingesting up to 6 g/day for over a year showed no adverse effects. Repeated exposure in the diet of rats and mice produced no adverse effects. Following long-term exposure in the diet, no effects were observed in female rats. A marginal increase in adrenal tumors in male rats in the high dose group and hyperplasia in the low dose group was considered of questionable significance. Mice experienced inflammation of the forestomach in high-dose animals, but no increase in tumors was noted. No pathological effects were seen in a 4 generation reproduction study, but some reduction in growth rate, survival and breeding efficiency was observed. No genetic changes were observed in tests using bacteria or animal cells.

Chronic Toxicity

There are no known carcinogenic chemicals in this product

Carcinogenicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chloropham:

This material is moderately to slightly toxic to bluegill sunfish, bass and carp (LC50 8-12 mg/l). It is highly toxic to Daphnia magna (LC50 0.05 mg/l).

Chem Fate:

This material has been reported to undergo microbial degradation in soil and water..

Isopropanol:

This material is practically non-toxic to Daphnia magna (48 hr ec50 2,285 mg/l), fruit fly (48 hr - LC50 10,200 mg/l), fathead minnow (96 hr LC50 3,200-9,640 mg/l), brown shrimp (96 hr LC50 1,150 mg/l), rainbow trout (96 hr LC50 7,600 mg/l), sheephead minnow (96 hr LC50 12,100 mg/l) and mysid shrimp (96 hr LC50 4,050 mg/l).

Chem Fate:

This material will rapidly photooxidize in the atmosphere. It has been shown to be rapidly biodegradable in adapted activated sludge and fresh and salt waste water dilutions (5 day BOD in adapted sludge 99%, 20-day BOD in unadapted sludge 70-78% in fresh water and 72% in salt water). The log Pow is 0.14.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. Do not apply directly to wetlands or water.. Dispose of in

accordance with all applicable federal, state, and local laws and regulations. .

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

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| 14. TRANSPORT INFORMATION |
|----------------------------------|

DOT

| | |
|-----------------------------|----------------------|
| Proper Shipping Name | Isopropanol solution |
| Hazard Class | 3 |
| UN-No | 1219 |
| Packing Group | PG II |

ICAO

| | |
|-----------------------------|----------------------|
| UN-No | 1219 |
| Proper Shipping Name | Isopropanol solution |
| Hazard Class | 3 |
| Packing Group | PG II |

IATA

| | |
|-----------------------------|----------------------|
| UN-No | 1219 |
| Proper Shipping Name | Isopropanol solution |
| Hazard Class | 3 |
| Packing Group | PG II |
| ERG Code | 3L |

IMDG/IMO

| | |
|-----------------------------|----------------------|
| Proper Shipping Name | Isopropanol solution |
| Hazard Class | 3 |
| UN-No | 1219 |
| Packing Group | PG II |
| EmS No. | F-E, S-D |

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| 15. REGULATORY INFORMATION |
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International Inventories

| | |
|-------------------------------------|--------|
| Chloropham | |
| EINECS/ELINCS | Listed |
| ENCS | Listed |
| CHINA | Listed |
| KECL | Listed |
| Isopropanol | |
| DSL | Listed |
| EINECS/ELINCS | Listed |
| ENCS | Listed |
| CHINA | Listed |
| KECL | Listed |
| Polyoxyethylene sorbitan monooleate | |
| DSL | Listed |
| ENCS | Listed |
| CHINA | Listed |
| KECL | Listed |

USA**Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

| | |
|------------------------------|-----|
| Chronic Health Hazard | No |
| Acute Health Hazard | Yes |
| Fire Hazard | No |

Sudden Release of Pressure Hazard
Reactive Hazard

Yes
 No

Clean Water Act

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

| Chemical Name | CAS-No | Weight % | HAPS data | VOC Chemicals | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|---------------|---------|----------|-----------|---------------|-------------------------|-------------------------|
| Isopropanol | 67-63-0 | 15 | | Listed. | | |

CERCLA

| Chemical Name | RQ |
|---------------|---------|
| Isopropanol | Listed. |

RCRA

Pesticide Information

State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---------------|---------------|------------|--------------|----------|--------------|
| Isopropanol | Listed. | | Listed. | Listed. | Listed. |

International Regulations

Mexico - Grade

Mexico - Grade

| Chemical Name | Category | Carcinogen Status | Exposure Limits |
|---------------|----------|-------------------|-----------------------|
| Isopropanol | | | 980 mg/m ³ |

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Not determined

| Chemical Name | NPRI |
|---------------|------|
| Isopropanol | X |

16. OTHER INFORMATION

Revision Date

14-Jan-2009

Revision Summary

Update section 15

UPI, Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with other materials or in any process. Further, since the conditions and methods of use are beyond the control of UPI, Inc. UPI, Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

End of MSDS